

SORT MIDDLE, SCREEN SPACE, GRAPHICS GEOMETRY

COMPRESSION THROUGH REDUNDANCY ELIMINATION

CROSS REFERENCE TO RELATED APPLICATION

5 This is a continuation application of co-pending application number
now Pat. No. 6,628,836
09/412,898 filed on October 5, 1999, which is hereby incorporated by reference
herein.

BACKGROUND OF THE INVENTION

1. Field of Invention

10 The present invention relates generally to the field of computer graphics and
pertains more particularly to sort middle, screen space, graphics geometry
compression through redundancy elimination.

2. Discussion of the Prior Art

Modern computer systems have become increasingly graphics intensive.

15 Dedicated special purpose memories and hardware have been developed to meet this
need. The majority of graphics systems are built to accelerate the standard graphics
pipeline. As an example FIG. 1 shows a block diagram of a graphics pipeline 10
having geometry processing 12 and rasterization 14. The pipeline 10 processes a three
dimensional (3D) database 16 having geometric objects 18 and textures 20 into a
20 display image 22 which may be shown to the user on a display monitor (not shown).
The geometric objects 18 are typically polygons but may also be triangles, lines, and
points. These are also known as primitives. For a particular primitive, its vertices or
geometrical point locations (p_x , p_y , p_z) are typically IEEE floating point values. Also,
attributes such as colors, normals, and texture coordinates may be specified at each